

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

March 24, 2010

TO: Internal File

THRU: Daron R. Haddock, Manager

FROM: James D. Smith, Permit Supervisor *JS 03/24/10*

RE: 2009 Third Quarter Water Monitoring, PacifiCorp, Trail Mountain Mine,
C/015/0009, Task ID #3393

The Trail Mountain Mine is currently idle. The monitoring plan is described in Appendix A of Volume 9 of the MRP.

1. Were data submitted for all of the MRP required sites?

In-mine YES ☒ NO ☐

The mine is sealed, so other than the Oliphant portal discharge (18-1-1 or T-18), which is monitored as a spring, there is no monitoring of underground or in-mine water.

Springs YES ☒ NO ☐

During the 3rd Quarter, the Oliphant portal discharge (18-1-1 or T-18) is monitored in September for operational water quality parameters. Springs 18-2-1, 17-21-1, 17-22-1, 17-26-4, 17-25-1, 17-26-5, 17-35-1, and 17-35-2 are monitored in July and August for flow and for operational parameters in September. Spring 17-22-1 was the only spring that had reported flow during the 3rd Quarter 2009, and data were collected for all three months.

Streams YES ☒ NO ☐

Stream monitoring sites SW-1, SW-2, SW-3, and 18-3-1 are monitored for flow in July and August and for operational parameters in September. SW-3 had no flow during the 3rd Quarter 2009 and SW-1 had reported flow only in July.

UPDES YES ☒ NO ☐

DMRs were submitted in electronic format (Adobe). There was no discharge from either

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UPDES point during the 3rd quarter 2009. The mine was sealed in June 2001 and there has been no reported discharge at UPDES UT23728-002 (the mine-water discharge into Cottonwood Creek) since May 2001.

Wells

YES ☒ NO ☐

TM-1B is monitored for water level in July and August and for operational parameters in September. TM-3 is monitored monthly for water level: since July 2004 the water level in TM-3 has been reported as head above the casing elevation, which is determined from pressure measured by a gauge on the sealed wellhead (see chart).

2. Were all required parameters reported for each site?

Springs

YES ☒ NO ☐

Streams

YES ☒ NO ☐

UPDES

YES ☒ NO ☐

Wells

YES ☒ NO ☐

3. Were any irregularities found in the data?

Listed parameters were outside two standard deviations. An asterisk (*) indicates this is not a parameter required by the MRP.

UPDES discharge from the Cottonwood/Wilberg Mine through the Trail Mountain Access Tunnel (TMA) began in July 2001; prior to that date this water discharged from the Trail Mountain Mine portals in Grimes Wash. This discharge is the source of the jump in TDS, sulfate, Ca, Mg, and K concentrations at SW-2 (see chart). Apparently this discharge has continued long enough that the values for these parameters are no longer flagged as exceeding the mean by more than 2 standard deviations.

Springs

YES ☒ NO ☐

17-22-1 July: Mg, Na, acidity*, and cation-anion balance.

Streams

YES ☒ NO ☐

18-3-1 September: field specific conductivity;
SW-2 September: water temperature.

UPDES

YES ☐ NO ☒

There was no discharge from either UPDES point during the 3rd quarter 2009.

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Wells

YES ☒ NO ☐

TM-1B July, August, September: depth. The head in TM-1B has been slowly rising since early 2003. The cause is not evident. See the chart below.

TM-1B September: bicarbonate as CaCO₃.

TM-3 July, August, September: water elevation peaked in June 2005, remained steady through October, dropped 18.5 ft in November and December 2005 and remained virtually unchanged during 2006. The pressure gauge was replaced in January 2007 and values jumped to approximately match the pre-2006 curve. During the first half of 2007, the curve was relatively flat, but it resumed climbing during the 3rd Quarter 2007 and has continued on an upward trend. See the chart below.

4. On what date does the MRP require a five-year resampling of baseline water data.

The next renewal submittal is due 10/21/09 for renewal on 02/21/10. Baseline analyses were performed in 2001 and 2006. Analyses for baseline parameters will be repeated every 5 years, i.e., the next baseline analyses will be in 2011.

5. Based on your review, what further actions, if any, do you recommend?

There is no further action recommended at this time.

6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements?

YES ☐ NO ☒

7. Follow-up from last quarter, if necessary.

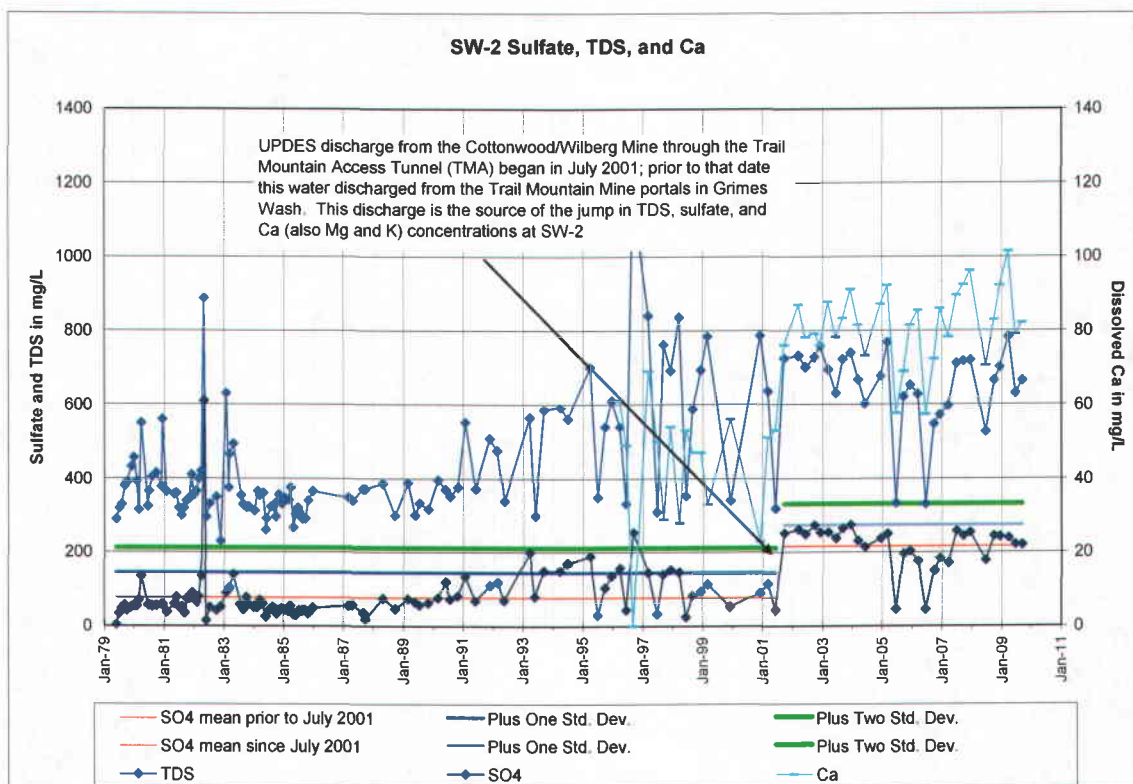
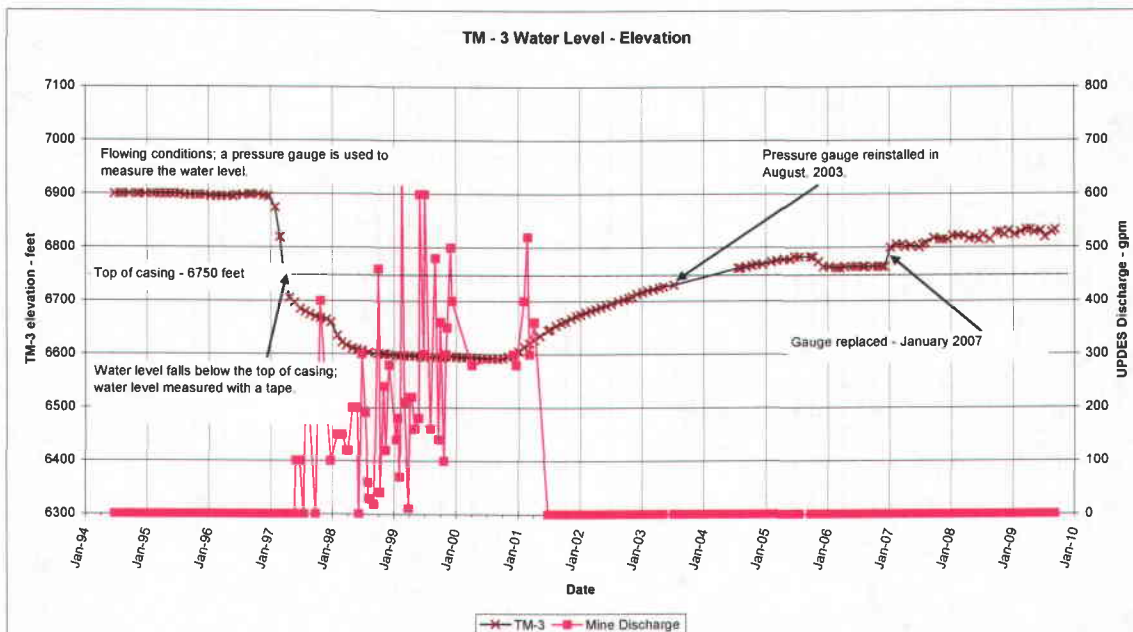
NA

8. Did the Mine Operator respond adequately to queries about missing or irregular data?

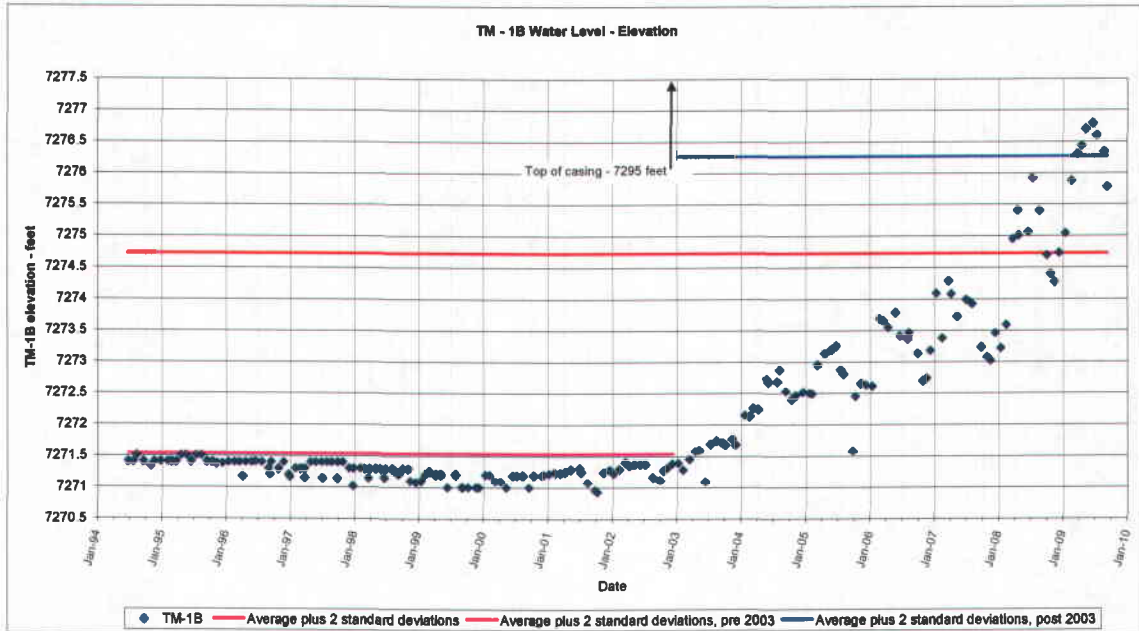
YES ☐ NO ☐

NA

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